

WHAT IS CLAIMED:

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1. In a wireless communications system having a base station and a mobile unit, a method for setting initial power levels between the mobile unit and the base station, said method comprising the steps of:
- 5 calculating an interference measure from a mobile unit received pilot power; and
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- setting an initial power level in a forward link based on said interference measure.
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2. The method according to claim 1, wherein said step of calculating determines a difference between said mobile unit received pilot power and a base station transmitted pilot power.
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3. The method according to claim 2, wherein said mobile unit received pilot power and said base station transmitted pilot power are E_c/I_0 s, each said E_c/I_0 representing a ratio between energy per chip to interference density.
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4. The method according to claim 1, wherein said mobile unit received pilot power is included in a request for services transmission from the mobile unit.
5. The method according to claim 1, wherein said interference measure indicates interference levels due to other base stations and mobile receiver noise.

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unit;

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10. The method according to claim 9, wherein said step of determining includes the steps of:

extracting said mobile unit received pilot power from transmitted messages in said access channel; and

computing a difference between said mobile unit received pilot power and a base station transmitted pilot power.

11. The method according to claim 10, wherein said mobile unit received pilot power and said base station transmitted pilot power are E_c/I_0 s, each said E_c/I_0 representing a ratio between energy per chip to interference density.

10 12. The method according to claim 9, wherein said interference measure indicates interference levels due to other base stations and mobile receiver noise.

13. The method according to claim 9, wherein said interference measure is linearly related to said initial power level.

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14. The method according to claim 9, wherein said interference measure is monotonically related to said initial power level.

15. In a wireless CDMA based communications system having a base station and a mobile unit, a method for setting up a call between the mobile unit and the base station, said method comprising the steps of:

receiving an access probe from the mobile unit;

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determining an interference measure from a mobile unit received pilot power transmitted in said access probe; and

setting an initial power level in a forward link traffic channel transmission based on said interference measure.

16. The method according to claim 15, wherein said step of determining includes the steps of:

extracting said mobile unit received pilot power from transmitted messages in said access probe; and

10 subtracting said mobile unit received pilot power from a base station transmitted pilot power.

17. The method according to claim 16, wherein said mobile unit received pilot power and said base station transmitted pilot power are E_c/I_0 s, each said E_c/I_0 15 representing a ratio between energy per chip to interference density.

18. The method according to claim 15, wherein said interference measure indicates interference levels due to other base stations and mobile receiver noise.

20 19. The method according to claim 17, wherein said interference measure is linearly related to said initial power level.

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calculating an interference measure from a mobile unit received pilot
and said base station transmitted pilot power; and

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24. The method according to claim 21, wherein said interference measure indicates interference levels due to other base stations and mobile receiver noise.

25. The method according to claim 21, wherein said interference measure is linearly related to said initial power level.

26. The method according to claim 21, wherein said interference measure is
5 monotonically related to said initial power level.

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